



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,647	06/27/2003	Nobuharu Nagaoka	SIP-123-A	2660
21828	7590	08/09/2006	EXAMINER	
CARRIER BLACKMAN AND ASSOCIATES 24101 NOVI ROAD SUITE 100 NOVI, MI 48375			AKHAVANNIK, HADI	
			ART UNIT	PAPER NUMBER
			2624	

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/607,647	Applicant(s) NAGAOKA ET AL.	
	Examiner Hadi Akhavan-nik	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/27/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura (6909802).

Regarding claim 1, Nakamura discloses an image analysis device comprising: first and second cameras which together constitute a set of stereo cameras (see figure 7 and column 3 lines 8-24, which disclose a stereo pair of camera. Also see column 3 lines 31-43, which discloses that parallax is created between the images);

and a distance calculation section (see column 3 lines 25-30)

which is adapted to calculate distance to an object in such a manner that a first image of the object is extracted from an image of a field taken by the first camera while a second image of the object corresponding to the first image of the object is extracted from a seeking area being set in another image of the field taken by the second camera (see figure 2 and column 3 lines 55-60, which discloses extracting a sample from a first image taken from the left camera and extracting a sample data from the second image taken from the right sensor. The extracted amount of data is of equal pixel numbers and are therefore of equal size.),

Art Unit: 2624

depending on the extracted first image using a correlation calculation process, and then a parallax between the first and second images is calculated (see column 4 lines 8-25 disclose using the parallax between the images),

wherein the distance calculation section is further adapted to set a moving increment based on the width of an object frame that is determined depending on the first image of the object, and to execute the correlation calculation process while moving the first image of the object stepwise at the moving increment in the seeking area so as to extract a new seeking area which consists of a correlation area that exhibits a high degree of correlation with the first image of the object and two areas that sandwich the correlation area (See figure 4, which discloses calculating the shift amount. See column 3 line 60 to column 4 line 5 for a brief overview and see column 8 lines 20-61 discloses sequential shifting the seeking frame continuously running a correlation calculation in order to find the area with the highest correlation value and degree of correspondence. Column 7 lines 34-40 disclose altering the position within at least one of the images).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Nakamura.

Regarding claim 2, Nakamura discloses all aspects of claim 2 except he does not explicitly disclose that the moving increment is set to be equal to the width of the object frame. Nakamura does disclose calculating the shift amount in figure 4.

The Examiner takes official notice that it would have been exceedingly obvious at the time of the invention to one of ordinary skill in the art to alter Nakamura's moving increment width to be the width of the object frame. The reason for this is because Nakamura already discloses calculating the increment size and claim 2 merely suggests a specific size, which is just an obvious variation to what Nakamura discloses. Therefore, the Examiner believes that the alteration in claim 2 discloses no new criticality to the invention and the invention of Nakamura would function equally well.

Allowable Subject Matter

3. Claim 3 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hirabayashi et al. (6021209, which discloses sequentially shifting positions to find maximum correlation).

Art Unit: 2624

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hadi Akhavannik whose telephone number is 571-272-8622. The examiner can normally be reached on 10:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571)272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

8/3/06
HA



JOSEPH MANCUSO
SUPERVISORY PATENT EXAMINER